THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte JOHN R. HALE,
JEFFREY M. FARINA, PHILIP J. KOEHLER
and NICHOLAS MAROPIS

_____

Appeal No. 96-2391
Application 08/002,286[1]

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ON BRIEF

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Before THOMAS, HAIRSTON and JERRY SMITH, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

[1] Application for patent filed January 8, 1993.

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-20, which constitute all the claims in the application.

The claimed invention pertains to a cathode sheath for use in a thermionic electron-gun cathode.

Representative claim 1 is reproduced as follows:

1. A cathode sheath for a thermionic electron-gun cathode, the sheath being substantially in the form of a hollow cylinder having an outer surface and an inner surface, a central axis, a closed end and an axially-opposite open end, and a side wall extending between the closed end and the open end, the sheath comprising a continuous bimetallic laminate having a first layer of material forming the inner surface and a second layer of electron-emissive material overlying substantially the entirety of the first layer and forming the outer surface, the laminate having a preselected thickness at the closed end and having a thickness at the side wall which varies along the central axis.

The examiner relied on the following references in the final rejection:

Larson	3,214,626	Oct. 26, 1965
Opresko	4,554,479	Nov. 19, 1985

The examiner applied the following additional references in new grounds of rejection set forth in the examiner’s answer:

Buescher et al. (Buescher)	3,974,414	Aug. 10, 1976
Falce et al. (Falce)	5,218,263	June 08, 1993 (filed Aug. 08, 1991)
Hale et al. (Hale)	5,422,536	June 06, 1995 (filed Aug. 03, 1993)

The admitted prior art.

Claims 1-20 were subject to final rejection under 35 U.S.C. § 103 as being unpatentable over the teachings of Opresko and Larson. This rejection was maintained in the examiner's answer, and the examiner added two additional rejections. Claims 1-20 now stand additionally rejected on the ground of obvious-type double patenting as being unpatentable over the claims of Hale. Claims 1-20 also stand additionally rejected under 35 U.S.C. § 103 as being unpatentable over the collective teachings of the admitted prior art, Larson, Buescher and Falce.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answers for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the obviousness and double patenting rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answers.

It is our view, after consideration of the record before us, that claims 1-20 are not properly rejected on the ground of obvious double patenting. We are further of the view that the collective evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-20. Accordingly, we reverse.

We consider first the rejection of claims 1-20 on the ground of obvious-type double patenting as being patentably indistinct from the claims of Hale. Hale was filed as a continuation-in-part application of this application on appeal. The continuation-in-part application added subject matter which was not disclosed in this application, and the claims of Hale all recite this additional subject matter. Thus, the difference between the claims of Hale and the claims of this application is that the claims of the patent are narrower in that they recite subject matter in addition to the subject matter of the claims on appeal.

The examiner has taken the position that since these claims on appeal are broader than the claims of the patent, these

claims on appeal would have been obvious to the artisan in view of the claims of the patent. According to the examiner, the judicially created doctrine of obvious-type double patenting precludes the granting of a full term patent on the claims in this application. Appellants respond that the obvious-type double patenting rejection is not properly made under the facts of this case because the examiner has not demonstrated two-way obviousness [reply brief, pages 10-12]. We agree with appellants.

In obvious-type double patenting rejections, the differences between the application of one-way obviousness determinations and two-way obviousness determinations have been clarified by the courts. In In re Braat, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991), the court held that a two-way obviousness determination must be satisfied in the situation where an applicant is not at fault that narrower claims may have issued before broader ones. Here, appellants filed narrower claims in a continuation-in-part application filed after the filing date of this application which contains the broader claims. The subject matter added in the continuation-in-part application could not have been added to this application without violating the new

matter prohibitions of the statute. Thus, the facts of the situation here are such that the narrower claims of the continuation-in-part application issued before the broader claims of this application through no fault of appellants. In contrast, consider the facts of In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993). In Goodman, appellants voluntarily chose to

accept narrower claims and to file a continuing application on the broader claims rather than to appeal the rejection of the broader claims. The court held that the two-way obviousness determination was not required under those facts. The court indicated that this would improperly extend the term limit mandated by Congress. The court noted that "[a] second application -- 'containing a broader claim, more generical in its character than the specific claim in the prior patent' -- typically cannot support an independent valid patent," Id. 11 F.3d at 1053, 29 USPQ2d at 2016, citing Miller v. Eagle Mfg. Co., 151 U.S. 186, 198 (1894). Thus, the court in Goodman decided that under the facts of that case, one-way obviousness would be sufficient and that generically broader claims are generally obvious over their more narrow counterparts.

In applying the rules of Braat and Goodman to the facts of this case, we find appellants' position to be correct. Since appellants received the patent on the narrower claims of the Hale patent first through no fault of their own, the proper test for the application of an obvious-type double patenting rejection is the two-way obviousness determination. Thus, even though the examiner is correct that as a general rule, the broader claims of this application are obvious over the narrower claims of the Hale patent, Goodman, supra, the examiner's failure to demonstrate the obviousness of the patent claims over the claims of this application, that is two-way obviousness, results in a failure to support a rejection on obvious-type double patenting under the facts of this case.

In conclusion, since two-way obviousness is necessary under the facts of this case, and since the examiner has not properly addressed this question, we do not sustain the rejection of claims 1-20 on the ground of obvious-type double patenting.

We now consider the rejection of claims 1-20 under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837

F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art.

Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

We turn first to the rejection of the claims based upon the teachings of Opresko and Larson. Opresko basically teaches a power cathode assembly of the type admitted by appellants to be prior art in figures 1 and 2. The examiner notes that Opresko does not teach the claimed second layer of the bimetallic laminate which overlays the entirety of the first layer of the bimetallic laminate, and the claimed bimetallic laminate which varies in thickness along the central axis [answer, page 4]. The examiner cites Larson as evidence that the two noted differences between the claims and Opresko would have been obvious to the artisan [answer, pages 4-5]. Appellants make several arguments in support of their position that the rejection is erroneous, but we will only consider the argument which, in our view, is most persuasive. That argument is that there is no teaching, suggestion, incentive or inference in the prior art that would lead the artisan to combine the teachings of Opresko and Larson to arrive at the claimed invention.

The major problem in combining the teachings of Larson with the teachings of Opresko is that the two references essentially defeat the very purpose of each other. Opresko has the emissive coating material at the closed end of the cathode

sleeve. Consequently, Opresko wants to retain as much heat at the closed end of the sleeve as possible. Opresko achieves this by removing the thermal conductive nickel layer except at the closed end of the sleeve. Any additional portions of the nickel layer not removed would serve to draw heat away from the closed end of the sleeve which would make the electron gun less efficient.

Although Larson does teach a cathode sleeve where the outer element essentially covers all of the inner element in a telescoping fashion, the emissive material in Larson is arranged on the sidewall in the axial direction so that it would defeat the purpose of the Opresko sleeve. Since Larson generates electrons radially from the sidewall, Larson wants to draw the

heat to the sidewall region as opposed to the end region. This drawing of heat to the sidewall region would adversely affect Opresko's attempt to consolidate the heat at the closed end of the sleeve.

Since Opresko and Larson are both concerned with concentrating the heat at the location where the emissive material is situated, their teachings would only be combined if it was desired to have emissive material at both the closed end

of the sleeve as in Opresko and along the sidewall as in Larson. There is no evidence on the record of this case to suggest that the artisan would desire to emit electrons in both the axial and radial directions simultaneously. In the absence of any incentive to consolidate heat in the closed end of the sleeve and in the sidewall at the same time, we can see no reason why the artisan would have attempted to combine the teachings of Larson with the teachings of Opresko.

In summary, we are of the view that the only suggestion for combining the teachings of Opresko with the teachings of Larson comes from appellants' own specification and a desire to recreate the claimed invention. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985). Since we are of the view

that the teachings of Larson relied upon would only be combined with the teachings of Opresko in order to reconstruct the claimed invention, we agree with appellants that the examiner improperly combined the teachings of these two references.

In conclusion, since the rejection of each of claims 1-20 is based upon an improper combination of the teachings of Opresko and Larson, we do not sustain the rejection of claims 1-20 based upon Opresko and Larson.

We now turn to the rejection of the claims based upon the teachings of the admitted prior art, Larson, Buescher and Falce. As we noted above, the admitted prior art of appellants' figure 2 is basically the same as the Opresko power cathode discussed above. Thus, the motivation for combining the teachings of Larson with the admitted prior art is lacking for the same reasons discussed above with respect to the rejection on Opresko and Larson. Notwithstanding this fact, we must still determine if the teachings of Buescher and/or Falce serve to overcome the deficiencies in the combination of Larson and the admitted prior art.

Buescher teaches a power cathode cap in which the thickness of the sidewall is less than the thickness of the

closed end where the electron emissive material is situated. Thus, Buescher is similar to the prior art in that the electrons are emitted axially from the closed end; however, Buescher does not teach varying the thickness of the sidewall along the central axis. Buescher also discloses that its cathode cap cannot be used with a conventional support sleeve, and instead, requires a separate support assembly such as shown in its Fig. 3. Thus, Buescher does not overcome the deficiencies of Larson and also provides an additional reason why its teachings would not be combined with the conventional sleeve of the admitted prior art.

Falce is cited for its teachings of using an eyelet and spider arrangement for holding the heating means within the cathode sleeve. Beyond this teaching, Falce offers nothing which can be used to overcome the deficiencies in combining the admitted prior art with Larson or with Beuscher.

Thus, we are again constrained to conclude that the artisan would have found no motivation for combining the applied references unless the artisan were attempting a hindsight reconstruction of the claimed invention. Since the examiner has not articulated a reasonable rationale for combining the

teachings of the admitted prior art, Larson, Buescher and Falce, we conclude that the applied prior art would not have suggested the invention as set forth in the claims on appeal. Accordingly, we also do not sustain this rejection of the claims.

In conclusion, we have not sustained any of the examiner's rejections of the claims. Therefore, the decision of the examiner rejecting claims 1-20 is reversed.

REVERSED

JAMES D. THOMAS Administrative Patent Judge	)
KENNETH W. HAIRSTON Administrative Patent Judge	) BOARD OF PATENT)) APPEALS AND)) INTERFERENCES
JERRY SMITH Administrative Patent Judge	)

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